

Appl. No. : 09/882,434  
Filed : June 15, 2001

### AMENDMENTS TO THE CLAIMS

**Please amend the claims as follows:**

Claim 1 (**currently amended**): An isolated or synthetic ~~DNA~~ polynucleotide which encodes an anti-microbial protein selected from the group consisting of:

- (i) a protein ~~which includes an amino acid sequence corresponding to~~ comprising residues 27 to 102 of ~~the sequence shown in~~ (SEQ ID NO: 1);
- (ii) a homologue of (i);
- (iii) a variant of (i); and
- (iv) a protein isolated from the family *Proteaceae* which specifically reacts with antibodies raised against (i) and which has ~~essentially the same~~ anti-microbial activity as (i).

Claim 2 (**currently amended**): A DNA polynucleotide according to claim 1 comprising nucleotides 148 to 375 of SEQ ID NO: 2.

Claim 3 (**withdrawn**): A ~~DNA~~ polynucleotide according to claim 1 which encodes a variant comprising residues 27 to 102 of SEQ ID NO: 1 with the following amino acid substitutions or any combination thereof:

K for Q at position 54 (SEQ ID NO: 15)

K for Q at position 65 (SEQ ID NO: 16)

K for Q at position 72 (SEQ ID NO: 17)

V for H at position 80 (SEQ ID NO: 18)

K for H at position 80 (SEQ ID NO: 19)

Claim 4 (**withdrawn**): A ~~DNA~~ polynucleotide according to claim 1 which encodes a variant having an amino acid sequence ~~selected from the sequence of~~ SEQ ID NO: 20 or SEQ ID NO: 21.

Claim 5 (**currently amended**): A DNA construct ~~which includes a~~ comprising the polynucleotide ~~DNA~~ according to claim 1 operatively linked to elements for the expression of ~~said encoded the protein encoded by said polynucleotide~~.

Claim 6 (**currently amended**): ~~Construct~~ A construct according to claim 5, wherein said ~~DNA includes polynucleotide comprises~~ nucleotides 70 to 375 of SEQ ID NO: 2.

Claim 7 (**currently amended**): ~~Construct~~ A construct according to claim 5 which is ~~selected from the group consisting of pPCV91-MiAMP1 and or pET-MiAMP1~~.

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Claim 8 (**currently amended**): A host cell ~~harbouring a~~ comprising the DNA construct according to claim 5.

Claim 9 (**currently amended**): ~~Host~~ A host cell according to claim 8 which is selected from the group consisting of a bacterial cell, a fungal cell, an insect cell, a plant cell, and a mammalian cell.

Claim 10 (**currently amended**): A transgenic plant ~~harbouring a~~ comprising the DNA construct according to claim 5.

Claim 11 (**currently amended**): ~~Transgenic~~ A transgenic plant according to claim 10 which is a monocot or a dicot.

Claim 12 (**currently amended**): ~~Transgenic~~ A transgenic plant according to claim 11 which is selected from the group consisting of grains, forage crops, fruits, vegetables, oil seed crops, palms, ~~forestry trees~~, and vines.

Claim 13 (**currently amended**): ~~Transgenic~~ A transgenic plant according to claim 11 which is selected from the group consisting of maize, banana, peanut, field pea, sunflower, tomato, canola, tobacco, wheat, barley, oats, potato, soybeans, cotton, carnation, sorghum, lupin and rice.

Claim 14 (**currently amended**): Reproductive material of a transgenic plant ~~harboring~~ comprising a DNA polynucleotide which encodes ~~a~~ an anti-microbial protein operably linked to elements for expression of said protein, wherein said protein is selected from the group consisting of:

- (i) a protein ~~which includes an amino acid sequence corresponding to~~ comprising residues 27 to 102 of ~~the sequence shown in~~ (SEQ ID NO: 1);
- (ii) a homologue of (i);
- (iii) a variant of (i); and
- (iv) a protein isolated from the family *Proteaceae* which specifically reacts with antibodies raised against (i) and which has ~~essentially~~ the same anti-microbial activity as (i).

Claim 15 (**Original**): ~~Reproductive~~ The reproductive material according to claim 14 which is selected from the group consisting of seeds, progeny plants and clonal material.

Claim 16 (**new**): An isolated polynucleotide which encodes an anti-microbial protein selected from the group consisting of:

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- (i) a protein comprising residues 27 to 102 of SEQ ID NO: 1; and
- (ii) a protein having a cysteine content and spacing identical to (i), wherein a majority of amino acid residues are identical to (i), and at the same relative positions as (i).

**Claim 17 (new):** An isolated polynucleotide according to claim 16, wherein all glycine residues within residues 27 to 102 of the sequence shown in SEQ ID NO: 1 are present.

**Claim 18 (new):** An isolated polynucleotide according to claim 16, wherein all proline residues within residues 27 to 102 of the sequence shown in SEQ ID NO: 1 are present.

**Claim 19 (new):** An isolated polynucleotide according to claim 16, wherein all histidine residues within residues 27 to 102 of the sequence shown in SEQ ID NO: 1 are present.

**Claim 20 (new):** An isolated polynucleotide according to claim 16, wherein distribution of charged residues within residues 27 to 102 of the sequence shown in SEQ ID NO: 1 is identical to that of said residues.

**Claim 21 (new):** An isolated polynucleotide according to claim 16, wherein all proline and histidine residues within residues 27 to 102 of the sequence shown in SEQ ID NO: 1 are present, and wherein distribution of charged residues within residues 27 to 102 of the sequence shown in SEQ ID NO: 1 is identical to that of said residues.

**Claim 22 (new):** An isolated polynucleotide according to claim 21, wherein all glycine residues within residues 27 to 102 of the sequence shown in SEQ ID NO: 1 are present.